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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/072,402	02/08/2002	Klein A. Rodriques	2002.ALC	4789

7590

06/26/2003

Thomas F. Roland  
NATIONAL STARCH AND CHEMICAL COMPANY  
P.O. Box 6500  
Bridgewater, NJ 08807-0500

EXAMINER
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ASINOVSKY, OLGA

ART UNIT	PAPER NUMBER
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1711

DATE MAILED: 06/26/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/072,402

Applicant(s)

RODRIQUES ET AL.

Examiner

Olga Asinovsky

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on 30 May 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1 and 7-20 is/are pending in the application.
- 4a) Of the above claim(s) 14 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 7-13 and 15-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### DETAILED ACTION

1. Claim 14 as amended directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: Claim 14, drawn to a detergent or cleaning composition, classified in class 510, subclass 310, 320, 392, 530 and class 424, subclass 94.1, 94.61. A graft polymer in claim 1 is a composition that can be used by itself as a polymer dispersant. The inventions of claim 1 and claim 14 are deemed patentably distinct each from the other as an intermediate-final product relationship. In the instant case, the intermediate product=graft polymer in claim 1 is deemed to be useful as a polymer dispersant and the inventions of claim 1 and claim 14 are deemed patentably distinct since there is nothing on this record to show them to be obvious variants.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claim 14 is withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

### ***Claim Rejections - 35 USC § 112***

2. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 discloses a graft polymer comprising a backbone moiety and at least one moiety grafted onto the backbone moiety, wherein: (A) said backbone and

grafted moieties comprise a hydrophobe and an amine or amide, wherein: (B) said backbone is selected from the groups consisting of a natural polymer, a non-polymer, and homopolymers and copolymers formed from monomers selected from the group consisting of (meth)acrylates, maleates, (meth)acrylamides, vinyl esters, itaconates, styrenes, unsaturated hydrocarbons, acrylonitrile, nitrogen functional monomers, vinyl esters, alcohol functional monomers, glycols, epoxides, and unsaturated hydrocarbons. There are two different statements (A) and (B) for the definitions of backbone polymer in the same claim. A backbone polymer in the second statement is selected from the ingredients recited under Markush groups. For example, the selected unsaturated hydrocarbons or the alcohol functional monomers have no hydrophobe moiety, nor an amine or amide moiety for producing a backbone polymer. Therefore, there is a contradiction with respect to the clarity of a backbone polymer. It is not clear how a selected non-polymer should have an amine or amide moiety. The unsaturated hydrocarbons are cited twice in claim 1. The definitions for hydrophobic and hydrophilic monomers are given at column 4 in the Patent 6,262,152, see discussed below.

The cancellation of claims 2-6 is noted.

3. ***Claim Rejections - 35 USC § 103***

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1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 7-13 and 15-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arfaei U.S. Patent 4,960,465.

The rejection is set forth at pages 2-3 of the office action mailed on 1/31/03, paper No. 3 and is incorporated here by reference.

3. Applicant's arguments filed 05/30/03 have been fully considered but they are not persuasive.

4. The applicants amend claim 1 by including the definitions for backbone polymer. In light of the unclear definition of the backbone polymer that was discussed in the paragraph 1 above, the backbone polymer could have both a hydrophobic moiety and an amine moiety, as originally claimed. And since the backbone polymer having both a hydrophobic moiety and an amine moiety has support in the present claim 7. Arfaei discloses the backbone polymer based on polyoxypropylene homopolymer or oxypropylene/oxyethylene copolymer having amino functional groups. The backbone polymer in Arfaei has both a hydrophobic moiety and an amine moiety. A grafted side chain polymer is dimethylaminoethyl methacrylate, column 4, line 17. The graft polymer in Arfaei is readable in applicants' claims 1, 7, 10, 15, 16.

5. The difference between the present claims and Arfaei is the requirement in the present claim 1 for the selected backbone polymer under Markush group. There is no

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specific argument in applicants' remarks that Arfaei fails to disclose the applicants' claimed graft polymer. It would have been obvious to one of ordinary skill in the art to use a graft copolymer in Arfaei such that the backbone and grafted side chain have both a hydrophobic moiety and an amine moiety and the ratio of the said amine to said hydrophobe can be selected as specified in the present claims 10-12 because the selected ratio is depending on the desired properties of the obtained graft copolymer. The applicants' argument is that Arfaei does not disclose applicants' claimed detergent or cleaning composition for the currently amended claim 14. This argument is not persuasive because the amended claim 14 is related to a different invention, see paragraph 1 above.

6. The new search has been made for a backbone polymer selected from the groups cited under Markush practice in the currently amended claim 1.

4. Claims 1, 7-13 and 15-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fryd et al U.S. Patent 6,262,152.

Fryd discloses a polymer dispersant having a hydrophobic and hydrophilic moieties, column 4, lines 48-49, 60-67 and column 4, lines 45-67. The resulting graft copolymer can have hydrophobic backbone moiety such as ethylhexyl acrylate/hydroxyethyl acrylate and grafted dimethylaminoethyl methacrylate, column 10, example 3 and column 11, line 38-40. The composition can be used as a dispersant for the organic particles or inorganic particles, column 3, lines 1-5. The biologically active ingredients or pharmaceutically active compounds can be present, for the present

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claims 17-18. The dispersions can include the substance to neutralize the monomers to make them soluble. The solubility of the obtained polymer is controlling by the specific selected substances and the ratio of the selected hydrophilic/hydrophobic moieties, column 5, lines 10-46. It would have been obvious to one of ordinary skill in the art to select the monomers for the formulation a backbone polymer in Fryd's invention such that the selected monomers would be within the scope of the broad limitations of the monomers in the present claim 1, and, thereby, obtain the claimed requirement.

5. ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Olga Asinovsky whose telephone number is 703-308-0041. The examiner can normally be reached on 9:00 to 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on 703-308-2462. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

Olga Asinovsky  
Examiner  
Art Unit 1711

O.A.  
O.A.  
June 24, 2003



James J. Seidleck  
Supervisory Patent Examiner  
Technology Center 1700